138961-1

IN THE SPECIFICATION

Please amend Paragraph [0050] as follows:

[0050] In synthesizing a polythiophene for a specific design temperature, e.g. for the series of poly(3-alkylthiophene)s there is roughly an inverse correlation with the length of the n-alkane substituent and the temperature of the thermochromic transition for both the regiorandom (R_1=alkyl, R_4=alkyl, n≅0.8, m≅0.2, l=40-80, R_2, R_3, R_5, R_6=H) and regioregular (R_1=alkyl, n=40-80, m=0, R_2, R_5, R_6=H), poly(3-n-alkylthiophene)s. For regiorandom polymers longer substituents such as n-hexadecyl have lower temperature thermochromic transitions (81°C) than shorter chain substituents such as n-octyl (130°C). The regioregular polymers have higher thermochromic transitions than the regiorandom polymers but the same inverse correlation with ~~chainlength~~ chain length is observed. The n-hexadecyl and n-octyl have thermochromic transition from about 125 to about 175°C. As long as the number of thiophene units in the polymer is approximately greater than sixteen the thermochromic transition is molecular weight independent. Oligothiophenes (n+m+1<16) have lower temperature thermochromic transitions than the polythiophenes (n+m+1>16).